

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A chalcopyrite type solar cell ~~(50)~~ comprising a stack ~~(14)~~ including a first electrode ~~(16)~~ composed of a metal, a light absorption layer ~~(18)~~ formed on or above said first electrode ~~(16)~~, which is composed of a chalcopyrite type compound serving as a P-type semiconductor, and a second electrode ~~(20)~~ formed on or above said light absorption layer ~~(18)~~, which serves as an N-type semiconductor, wherein:

mica is contained in an insulative substrate ~~(52)~~ that retains said stack ~~(14)~~;
and

a smoothing layer having irregularities on an upper end surface thereof is provided between said insulative substrate and said stack, said irregularities of the smoothing layer being smaller than irregularities on an upper end surface of said insulative layer; and

a binder layer ~~(56)~~, which is two binder layers, which are composed of a nitrogen compound, is are interposed between said insulative substrate ~~(52)~~ and said stack ~~(14)~~ such that said two binder layers sandwich said smoothing layer.

2. (Currently Amended) The chalcopyrite type solar cell ~~(50)~~ according to claim 1, wherein said binder layer ~~(56)~~ contains TiN or TaN, and said binder layer ~~(56)~~ has a thickness of 0.5 to 1 μm .

3. (Currently Amended) The chalcopyrite type solar cell ~~(50)~~ according to claim 1 ~~or~~ 2, wherein said insulative substrate ~~(52)~~ comprises a mica aggregate, which is sintered after mixing said mica and a resin.

4. (Currently Amended) The chalcopyrite type solar cell ~~(50)~~ according to claim 3, wherein ~~a said smoothing layer (54) containing~~ contains one of SiN and SiO₂ ~~and having irregularities on an upper end surface thereof is provided between said insulative substrate (52) and said binder layer (56), and wherein said irregularities of said smoothing layer (54) are smaller than irregularities on an upper end surface of said insulative substrate (52).~~

5. (Currently Amended) The chalcopyrite type solar cell ~~(50)~~ according to ~~any one of claims 1 to 4~~ claim 1, wherein a buffer layer ~~(22)~~ and a semi-insulative layer ~~(24)~~ are interposed between said light absorption layer ~~(18)~~ and said second electrode ~~(20)~~.

6. (New) The chalcopyrite type solar cell according to claim 2, wherein said insulative substrate comprises a mica aggregate, which is sintered after mixing said mica and a resin.

7. (New) The chalcopyrite type solar cell according to claim 6, wherein said smoothing layer contains one of SiN and SiO₂.